

**CH-53D OPERATIONAL FLIGHT TRAINER, DEVICE 2F121****TRAINING CATEGORY:**

AVIATION (Operational Flight Weapon Systems)

ORIGINATING AGENCY:

DCNO/AIR

SECURITY CLASSIFICATION:

Device 2F121 less databases is unclassified.
Device 2F121 with databases is SECRET.

PURPOSE OF DEVICE:

To provide for increased proficiency of CH-53D pilots by simulation of the following operations: normal/emergency procedures (air, land, and shipboard), preflight, startup, takeoff, maneuvers, instrument flight, loading operations, landing, shutdown, and postflight.

INTENDED USE:

In Marine Corp Air Stations for familiarization and refresh training of pilot/copilots.

FUNCTIONAL DESCRIPTION:

Device 2F121 simulates the response of CH-53D controls, instruments, and systems, to include the, aural, motion, visual, and force-feel sensations.

The Computational System consists of a Gould Concept 32/77 computer and its peripherals: dual operator terminals; magnetic tape unit; two 80MB fixed disks; and printer/plotter. These units, through Instructor/Trainee inputs to the simulation software database, output digital/analog signals to reconfigure cockpit equipment and visual/motion/aural equipment.

The reconfiguration is performed many times a second, is transparent to the Trainee, and ensures that visual, motion, aural, and flight control operations are in concert.

Maintenance/troubleshooting requirements are supported by on-line and off-line computer implemented diagnostic tests.

DIRECTORY OF NAVAL TRAINING DEVICES

PHYSICAL INFORMATION:

The Trainer has 31 units of various sizes: smallest = 24 x 24 x 24, largest = 130 x 90 x 70, and on average = 20 x 25 x 48 Inches. Together, the units weigh (including cables) about 35,500 pounds. Total system heat generated (Including Personnel) is about 95,000 BTU/HR.

OPERATIONAL EQUIPMENT:

Clock (ABU-9A), ICS Panels (AIC-14), ADF Control Panel (C7392/ARN89A), IFF Control Panel (C6280P/APX), KY-58 SVU (C-10320), and APP Temperature Indicator.

POWER REQUIREMENTS:

120/208-volt, 60 Hz, 3-phase, 85% PF, 150 amps; 277/480-volt, 60 Hz, 3-phase, 85% PF, 400 amps.

INSTALLATION REQUIREMENTS:

Min Installation Area:	2,433 Sq. Ft
Ambient Temperature:	73° F
Relative Humidity:	55%
Overhead Lighting:	150 lm/Sq Ft
Utility Area Noise:	90 dB max
All other Area Noise:	70 dB max

PUBLICATIONS FURNISHED:

1. Technical Manual, Operator and Maintenance Instructions, CH-53D Operational flight Trainer, Device 2F121, NTSC P-4838 (U).
2. Planned Maintenance System (PMS), CH-53D Operational Flight Trainer, Device 2F121, NTSC P-4839 (U).
3. Commercial Computer Documentation Set for the CH-53D Operational Flight Trainer, Device 2F121, NTSC P-4840 (U).

4. Technical Manual, Instructor's Utilization Handbook, CH-53D Operational Flight Trainer, Device 2F121, NTSC P-4918 (U).
5. Technical Manual, On-The-Job Training Handbook, CH-53D Operational Flight Trainer, Device 2F121, NTSC P-5187 (U).

PERSONNEL:

Instructors:	One (1), Instructor Pilot qualified in CH-53D Aircraft Operations.
Operators:	None, device is Instructor Pilot operated.
Trainees:	Class of 1 or 2 consisting of Pilot and/or Copilot.
Maintenance:	Two (2), journeyman level electronics technicians, 40 hour/week each.

CONTRACT IDENTIFICATION:

Manufactured by Sperry Corporation, Reston, VA, under NAVTRASYSCEN Contract No. N61339-79-C-0079.

LOCAL STOCK NUMBER:

6930-LL-C00-4388